

REMARKS

Claims 1-3, 11 and 18 have been rejected under 35 U.S.C. 102(e) as being anticipated by Cheng et al. (U.S. Patent 6,541,382). This rejection is respectfully traversed in view of for the following reasons.

Claim 1 has been amended to recite "patterning a silicon oxynitride layer having a composition  $\text{Si}_x\text{O}_y\text{N}_z\text{H}_A$ " and "conditioning the patterned silicon oxynitride layer such that the silicon oxynitride layer has a composition  $\text{Si}_x\text{O}_y\text{N}_z\text{H}_A$ ", wherein no wet clean step is performed between the etching of the trench and the conditioning of the patterned silicon oxynitride layer". Support for this amendment exists in the specification as originally filed at paragraphs [0020] and [0026]. No new matter is added.

In contrast, Cheng et al. teaches "the silicon oxynitride ARC 16 is also partially oxidized to form a silicon oxide layer 70b on the ARC surface". Cheng et al. does not teach that the composition of silicon oxynitride ARC 16 is changed. Rather, Cheng et al. teaches the formation of a silicon oxide layer 70b over silicon oxynitride ARC 16. Thus, Cheng et al. fails to teach "conditioning the patterned silicon oxynitride layer such that the silicon oxynitride layer has a composition  $\text{Si}_x\text{O}_y\text{N}_z\text{H}_A$ " as recited by Claim 1. For this reason, Claim 1 as amended is not anticipated by Cheng et al. Claims 2, 3, 11 and 18, which depend from Claim 1, are not anticipated by Cheng et al. for at least the same reasons as Claim 1.

In addition, Claim 2 recites "wherein the conditioning step comprises densifying the patterned silicon oxynitride layer". Cheng et al. do not teach densifying silicon oxide layer 16. For this additional reason, Claim 2 is not anticipated by Cheng et al.

Claim 4 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al. in view of Ballantine et al. (U.S. Patent 6,417,070). This rejection is respectfully traversed for the following reasons.

Claim 4, which depends from Claim 1, is allowable over Cheng et al. for at least the same reasons as Claim 1. Because Ballantine et al. does not remedy the above-described deficiencies of Cheng et al., Claim 4 is allowable over Cheng et al. in view of Ballantine et al.

Claims 12-17 have been rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al. in view of Wolf. This rejection is respectfully traversed in view of for the following reasons.

Claims 12-17, which depend from Claim 1, are allowable over Cheng et al. for at least the same reasons as Claim 1. Because Wolf does not remedy the above-described deficiencies of Cheng et al., Claims 12-17 are is allowable over Cheng et al. in view of Wolf.

Claim 19 has been rejected under 35 U.S.C. 103(a) as being unpatentable over Cheng et al. in view of Applicant's Admitted Prior Art (AAPA). This rejection is respectfully traversed in view of for the following reasons.

Claim 19, which depends from Claim 1, is allowable over Cheng et al. for at least the same reasons as Claim 1. Because AAPA does not remedy the above-described deficiencies of Cheng et al., Claim 19 is allowable over Cheng et al. in view of AAPA.

Claim 20 recites "wherein the wet clean step does not react with the conditioned silicon oxynitride layer". Support for Claim 20 appears in the specification as originally filed at paragraph [0030]. No new matter is added.

CONCLUSION

Claims 1-4 and 11-20 are pending in the present application. Reconsideration and allowance of these claims is respectfully requested. If the Examiner has any questions or comments, he is invited to call the undersigned at (925) 895-3545.

Respectfully submitted,

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